

REMARKS

Claims 1-18 and 20-37 are pending in the present application. Claims 1-18 and 20-37 were rejected. Applicants have amended Claims 1, 10, 18, 20, 27, and 37. Applicants have cancelled Claims 32-35 without prejudice. Reconsideration is respectfully requested in light of the present amendments and following remarks. The above amendments and following remarks are believed to be fully responsive to the Outstanding Office Action. Upon entry of these amendments and consideration of these remarks, Applicants submit that all of the pending Claims will be allowable.

Claim Rejections - 35 USC § 102

Claims 18, 20, 23, and 25 were rejected under 35 U.S.C. § 102(b) as being anticipated by Freerks (US 5,579,718). Applicants respectfully request reconsideration of these rejections in light of the present amendments and the following remarks.

The Office Action states that Freerks discloses a sealing member comprising an o-ring groove disposed on a cylindrical portion of the sealing member and an o-ring removal slot perpendicular to the o-ring groove. The Office Action also states that with regard to claims 23 and 24, Freerks discloses a groove disposed around an outer surface of the sealing member component 21 and an inner surface of the sealing member component 54.

Applicants respectfully object to the characterization of the sealing member of Freerks having a "cylindrical portion" for disposition of an o-ring. The

portion of the sealing member of Freerks that accommodates the o-ring is a planar surface as shown in the figures and is not cylindrical. Applicants have amended Claim 18 to include a cylindrical surface rather than a cylindrical portion so as to more specifically describe the structure of the claimed invention and to distinguish such structure over Freerks. Freerks does not disclose a cylindrical surface for disposition of the o-ring, Freerks discloses a planar surface for disposition of the o-ring. Additionally, Freerks does not disclose a distal end defining a cylindrical surface. The o-ring of Freerks is disposed around the entire periphery of the cover plate 22 and not at any specific distal end.

Applicants have also amended Claim 18 to include the limitation that the o-ring groove defines a substantially constant width. The o-ring groove of Freerks does not define a substantially constant width and rather defines a restriction 46 that is narrower than the o-ring 30 as clearly shown in figures 3, 4, and 4a.

Further, the sealing member component 54 of Freerks does not even include the groove 50 as disclosed in the prior art device of figures 2 through 4a, so the sealing member 54 cannot be used as anticipatory prior art. Therefore, since Freerks does not disclose a sealing member with a distal end defining a cylindrical surface or an o-ring groove defining a substantially constant width, Claim 18 cannot be anticipated. Accordingly, Applicants respectfully request that the rejection of Claim 18 be withdrawn.

Claims 20, 23, and 24 depend from Claim 18 and distinguish over Freerks for at least the reasons stated above in connection with Claim 18. Therefore,

Applicants respectfully request that the rejection of Claims 20, 23, and 24 be withdrawn.

Claim Rejections - 35 USC § 103

Claims 1, 3-5, 7-10, 12-14, 16, 17, 30, and 32-37:

Claims 1, 3-5, 7-10, 12-14, 16, 17, 30, and 32-37 were rejected under 35 U.S.C. § 103(a) as being unpatentable over the admitted prior art in view of Freerks. Applicants respectfully request reconsideration of this rejection in light of the present amendments and the following remarks.

The Office Action states that it would have been obvious to provide the admitted prior art pin with the o-ring removal slot, as taught by Freerks, to simplify removal of the o-ring from the pin.

Applicant has amended Claim 1 to more specifically describe the o-ring groove to be disposed around a cylindrical surface of the pin and to define a substantially constant width, as described above in connection with Claim 18, which further distinguishes the claimed invention over the Freerks reference. Applicants contend that it would not have been obvious to modify the admitted prior art pin with the removal slot as taught by Freerks since the removal slot of Freerks is provided to pry the o-ring out of a dovetail groove, wherein the o-ring is press-fitted into the o-ring groove that includes a restriction at the planar face. The small groove 50 of Freerks is not provided to access an o-ring that is inaccessible or unreachable within the cover plate 22. Rather, the small groove of Freerks is provided to pry out an o-ring that is press-fit into a groove with a

restriction that inhibits removal. The o-ring groove according to the claimed invention does not include a restriction that inhibits removal of the o-ring but rather is not readily accessible when assembled for operation, which is a completely different configuration from the apparatus of Freerks. Therefore, it would not have been obvious to provide the admitted prior art pin with the small groove of Freerks.

Additionally, the o-ring groove of Freerks is disposed along a flat surface, not around a cylindrical surface as required in the claimed embodiment. Furthermore, the pin according to the claimed embodiment is for use in a plasma arc apparatus, whereas the device in Freerks is for use in the manufacture of semiconductor devices. Moreover, there is no teaching or suggestion to combine the teachings of Freerks with the admitted prior art pin. Therefore, it would not have been obvious to provide the admitted prior art pin with the small groove 50 as taught by Freerks and the Applicants respectfully request that the rejection of Claim 1 be withdrawn.

Claims 3-5, and 7-9 depend from Claim 1 and distinguish over the cited reference and the admitted prior art for at least the reasons stated above in connection with Claim 1. Therefore, Applicants respectfully request that the rejection of Claims 3-5 and 7-9 be withdrawn.

Claim 10 has also been amended in accordance with Claim 1, namely, to include the limitation of a cylindrical surface for disposition of the o-ring and the o-ring groove defining a substantially constant width. Therefore, Claim 10 distinguishes over the cited reference and the admitted prior art for at least the

reasons stated above in connection with Claim 1 and Applicants respectfully request that the rejection of Claim 10 be withdrawn.

Claims 12-14, 16, and 17 depend from Claim 10 and distinguish over the cited reference and the admitted prior art for at least the reasons stated above in connection with Claim 10. Therefore, Applicants respectfully request that the rejection of Claims 12-14, 16, and 17 be withdrawn.

Claims 1, 3-5, 7-10, 12-14, 16, and 17:

Claims 1, 3-5, 7-10, 12-14, 16, and 17 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Boisvert in view of Freerks. Applicants respectfully request reconsideration of these rejections in light of the present amendments and the following remarks.

Claims 1, 3-5, 7-10, 12-14, 16, and 17 distinguish over Boisvert in view of Freerks for at least the reasons stated above in connection with the previous rejection of Claims 1, 4, 5, 9, 13, 14, and 17. Therefore, the claimed embodiments as set forth in Claims 1, 3-5, 7-10, 12-14, 16, and 17 are not obvious and Applicants respectfully request that the rejections of Claims 1, 3-5, 7-10, 12-14, 16, and 17 be withdrawn.

Claims 1, 2, 10, 11, 18, and 22:

Claims 1, 2, 10, 11, 18, and 22 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Almeras in view of Freerks. Applicants respectfully request reconsideration of these rejections in light of the present amendments and the following remarks.

Claims 1, 2, 10, 11, 18, and 22 distinguish over Almeras in view of Freerks for at least the reasons stated above in connection with the previous rejection of Claims 1, 4, 5, 9, 13, 14, and 17. Furthermore, the connector of Almeras is not for use in a plasma arc apparatus. Therefore, the claimed embodiments as set forth in Claims 1, 2, 10, 11, 18, and 22 are not obvious and Applicants respectfully request that the rejections of Claims 1, 2, 10, 11, 18, and 22 be withdrawn.

Claims 24, 27, 28, 30, and 31:

Claims 24, 27, 28, 30, and 31 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Mengle in view of Freerks. Applicants respectfully request reconsideration of these rejections in light of the present amendments and the following remarks.

Claims 24, 27, 28, 30, and 31 distinguish over Mengle in view of Freerks for at least the reasons stated above in connection with the previous rejection of Claims 1, 4, 5, 9, 13, 14, and 17. Additionally, Claim 27 has been amended to include the limitation of a cylindrical surface for disposition of the o-ring. Therefore, the claimed embodiments as set forth in Claims 24, 27, 28, 30, and 31 are not obvious and Applicants respectfully request that the rejections of Claims 24, 27, 28, 30, and 31 be withdrawn.

Claim 26:

Claim 26 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Freerks. Applicants respectfully request reconsideration of these rejections in light of the present amendments and the following remarks.

Claim 26 distinguishes over Freerks for at least the reasons stated above in connection with the previous rejection of Claims 1, 4, 5, 9, 13, 14, and 17. Therefore, the claimed embodiment as set forth in Claim 26 is not obvious and Applicants respectfully request that the rejection of Claim 26 be withdrawn.

Claim 21:

Claim 21 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Freerks in view of Nejad. Applicants respectfully request reconsideration of these rejections in light of the present amendments and the following remarks.

Claim 21 distinguishes over Freerks in view of Nejad for at least the reasons stated above in connection with the previous rejection of Claims 1, 4, 5, 9, 13, 14, and 17. Additionally, the device of Nejad is not for use in a plasma arc apparatus. Therefore, the claimed embodiment as set forth in Claim 21 is not obvious and Applicants respectfully request that the rejection of Claim 21 be withdrawn.

Claims 6 and 15:

Claims 6 and 15 were rejected under 35 U.S.C. § 103(a) as being unpatentable over the admitted prior art in view of Freerks, and further in view of Nejad.

Claims 6 and 15 distinguish over the admitted prior art in view of Freerks, and further in view of Nejad for at least the reasons stated above in connection with the previous rejection of Claims 1, 4, 5, 9, 13, 14, and 17, and also the rejection of Claim 21. Therefore, the claimed embodiments as set forth in Claims

6 and 15 are not obvious and Applicants respectfully request that the rejections of Claims 6 and 15 be withdrawn.

Claim 29:

Claim 29 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Mengle in view of Freerks, and further in view of Nejad.

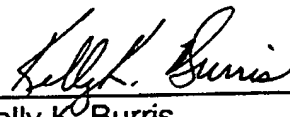
Claim 29 distinguishes over Mengle in view of Freerks, and further in view of Nejad for at least the reasons stated above in connection with the previous rejection of Claims 1, 4, 5, 9, 13, 14, and 17, and also the rejections of Claim 21, 6, and 15. Therefore, the claimed embodiment as set forth in Claim 29 is not obvious and Applicants respectfully request that the rejection of Claim 29 be withdrawn.

Conclusion

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (314) 726-7500.

Respectfully submitted,

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